

Report Date: 16 May 2014

**Summary Report for Individual Task
011-218-1315
Perform Single-Engine Landing
Status: Approved**

Distribution Restriction: Approved for public release; distribution is unlimited.

Destruction Notice: None

Foreign Disclosure: FD5 - This product/publication has been reviewed by the product developers in coordination with the Fort Rucker foreign disclosure authority. This product is releasable to students from all requesting foreign countries without restrictions.

Condition: In a C-12 series airplane, with an IP, VMC and a non-contaminated runway (Contaminated runway as defined by the Aeronautical Information Manual).

- Standard:**
1. Maintain a minimum of best single-engine, rate-of climb speed (VYSE) or above until landing is assured.
 2. Attain landing approach speed plus one-half the wind gust spread 5 KIAS.
 3. Maintain at or above the approach angle on the FMS/ILS glide path, VASI or precision approach path indicator (PAPI) when available.
 4. Cross the runway threshold at VREF (indicated reference speed) plus one-half the wind gust spread 5 KIAS.
 5. Touchdown on the first 3,000 feet of the runway beginning at the threshold or the first third of the runway (on runways shorter than 9,000 feet) and roll out with desired runway track between the main landing gear.
 6. Maintain positive directional control and crosswind correction during the after-landing roll.
 7. Use beta, reverse, ground fine, and brakes (as appropriate) in such a manner to bring the aircraft to a safe stop.

Special Condition: NIGHT CONSIDERATIONS: Normal approach and landing techniques are used at night. When visibility is lowered by haze/smoke, the range of the landing light(s) may be insufficient to see obstructions in time to avoid them. An ILS glideslope or VASI/PAPI, when available, is the most accurate and reliable means of approach angle indication and will be used to maintain a safe glide path. If an ILS glideslope or VASI/PAPI is not available, the obstruction lights and the threshold lights should be used to establish a sight picture during the approach. The apparent distance between runway lights can also be used as an aid in establishing the flare-out point.

Safety Risk: Medium

MOPP 4:

Task Statements

Cue: None

DANGER
None

WARNING
None

CAUTION
None

Remarks: None

Notes: None

Performance Steps

1. Crew actions. The P*'s main focus will be outside the aircraft. Throughout the maneuver, the P should assist the P* by clearing the area and perform all actions requested by the P*. The P will complete all designated P duties and read the CL when the P* calls for it. The P will inform the P* when any designated or required checks are completed. When performing a simulated single engine landing, The IP will complete the required checks or procedures pertaining to the P's crew duties. The IP will also read the CL and perform all designated P actions, (such as monitoring flight and engine instruments), and those actions requested by the P*.

Note:

Underlined emergency items in the operator's manual will be committed to memory. This should not be construed to mean the P* must verbally call out the underlined items in the procedure while dealing with an emergency. The underlined items are DO items followed by verification with the CL, when time and altitude permits.

2. Procedure. The P*, assisted by the P, will perform the following actions:

a. Complete the single engine descent-arrival check or call for P action before entering the traffic pattern or starting an instrument approach. Fly a normal traffic pattern or a normal instrument approach and perform the single-engine before-landing check at the same point as with both engines operating. The P will verify the single engine before landing check and announce, "SINGLE ENGINE BEFORE LANDING CHECK COMPLETE." when the last item is verified. Plan for a normal approach, allowing for sufficient time on final so minor alignment, speed, and altitude corrections can be accomplished without excessive low-altitude maneuvering. Turn final and complete the turn above 500 feet AGL. Maintain a minimum of VYSE until landing is assured. Landing assured can be defined as the point on final where the decision to extend flaps beyond APPROACH is based on the ability to remain VMC until touchdown and the need to start reducing airspeed gradually so as to arrive at VREF plus one-half the wind gust spread at approximately 50 feet above the landing area. When it is certain that there is no possibility of a go-around, the P* should call for "FLAPS FULL" (A single engine go around should not be attempted after flaps are extended beyond approach).

b. Reduce airspeed so as to be at VREF plus one-half the wind gust spread at about 50 feet above the landing area. Avoid abrupt changes in power and anticipate a yaw and roll as power is reduced. Reduce power at a controllable rate that will allow aileron and rudder to be applied to maintain centerline during round out. Make a normal touchdown. After touchdown, use brakes/ground fine and propeller reversing (if applicable) as necessary to slow the aircraft. Propeller reversing must be limited to a rate consistent with directional control. Perform the after-landing procedure when clear of the runway.

c. Throughout the maneuver, the P should assist the P* by clearing the area and perform all actions requested by the P*. The P will complete all designated P duties and read the CL when the P* calls for it. The P will inform the P* when any designated or required checks are completed.

Note:

The feathered propeller or simulated feathered propeller will produce less drag than a wind-milling propeller. It will cause the aircraft to float during the round out and roll out farther than during a normal landing. The tendency to float during round out can be minimized by adjusting the height from which the round out is started.

Note. Do not intentionally cross the threshold with excessive airspeed thinking it is safer. VREF is the same for single engine as it is for two engines. Excessive airspeed increases the sensitivity of control inputs and may result in over-controlling. In addition, the inertia will result in increased floating and longer landings.

(Asterisks indicates a leader performance step.)

Evaluation Guidance:

Evaluation will be conducted academically, in the aircraft or in an approved FS.

Evaluation Preparation:

Training will be conducted academically, in the aircraft or in an approved FS.

PERFORMANCE MEASURES	GO	NO-GO	N/A
1. Maintained a minimum of best single-engine, rate-of climb speed (VYSE) or above until landing is assured.			
2. Attained landing approach speed plus one-half the wind gust spread ± 5 KIAS.			
3. Maintained at or above the approach angle on the FMS/ILS glide path, VASI or precision approach path indicator (PAPI) when available.			
4. Crossed the runway threshold at VREF (indicated reference speed) plus one-half the wind gust spread ± 5 KIAS.			
5. Touchdowned on the first 3,000 feet of the runway beginning at the threshold or the first third of the runway (on runways shorter than 9,000 feet) and roll out with desired runway track between the main landing gear.			
6. Maintained positive directional control and crosswind correction during the after-landing roll.			
7. Used beta, reverse, ground fine, and brakes (as appropriate) in such a manner to bring the aircraft to a safe stop.			

Supporting Reference(s):

Step Number	Reference ID	Reference Name	Required	Primary
	TM 1-1510-218-10	OPERATORS MANUAL FOR ARMY C-12C, C-12D, C-12T1, AND C-12C2 AIRCRAFT	No	No
	TM 1-1510-218-CL	OPERATORS AND CREWMEMBERS CHECKLIST FOR ARMY C-12C AIRCRAFT (NSN 1510- 01-070-3661); ARMY C-12D AIRCRAFT (1510-01-087-9129); ARMY C-12T AIRCRAFT (1510-01-470-0220)	No	No

Environment: Environmental protection is not just the law but the right thing to do. It is a continual process and starts with deliberate planning. Always be alert to ways to protect our environment during training and missions. In doing so, you will contribute to the sustainment of our training resources while protecting people and the environment from harmful effects. Refer to FM 3-34.5 Environmental Considerations and GTA 05-08-002 ENVIRONMENTAL-RELATED RISK ASSESSMENT.

Safety: In a training environment, leaders must perform a risk assessment in accordance with FM 5-19, Risk Management. Leaders will complete a DA Form 7566 COMPOSITE RISK MANAGEMENT WORKSHEET during the planning and completion of each task and sub-task by assessing mission, enemy, terrain and weather, troops and support available-time available and civil considerations, (METT-TC). Note: During MOPP training, leaders must ensure personnel are monitored for potential heat injury. Local policies and procedures must be followed during times of increased heat category in order to avoid heat related injury. Consider the MOPP work/rest cycles and water replacement guidelines IAW FM 3-11.4, Multiservice Tactics, Techniques, and Procedures for Nuclear, Biological, and Chemical (NBC) Protection, FM 3-11.5, Multiservice Tactics, Techniques, and Procedures for Chemical, Biological, Radiological, and Nuclear Decontamination.

Prerequisite Individual Tasks : None

Supporting Individual Tasks : None

Supported Individual Tasks : None

Supported Collective Tasks : None